



# User's Manual

## Model # AR504

Ver. 1A

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# 1. Introduction

Congratulations on your purchase of this Broadband Router. This product is specifically designed for Small Office and Home Office needs. It provides a complete SOHO solution for Internet surfing and is easy to configure and operate even for non-technical users. Instructions for installing and configuring this product can be found in this manual. Before you install and use this product, please read this manual carefully for proper operation of this product.

## 1.1 Functions and Features

### Basic Functions

- **NAT Routing**  
Connects multiple computers to a broadband (cable or DSL) modem or an Ethernet router to surf the Internet.
- **Auto-Sensing Ethernet Switch**  
Equipped with a 4-port auto-sensing Ethernet switch.
- **WAN Types supported**
  - The router supports the following WAN types: Static IP, Dynamic IP, PPPoE, PPTP, L2TP, and Dynamic IP with Road Runner.
- **Firewall**  
All unwanted packets from outside intruders are blocked to protect your Intranet.
- **DHCP Server Supported**  
All of the networked computers can retrieve TCP/IP settings automatically from this product.
- **Web-Based Configuration**  
Configurable through any networked computer's web browser using Netscape or Internet Explorer.
- **Virtual Server supported**  
Allows you to expose WWW, FTP, and other services on your LAN to the Internet.
- **User-Definable Application Sensing Tunnel**  
User can open multiple ports for special applications that require multiple connections like Internet gaming, video conferencing, Internet telephony, etc.
- **DMZ Host Supported**  
Allows a networked computer to be fully exposed to the Internet; this function is used when the special application sensing tunnel feature is insufficient to allow an application to function correctly.
- **Statistics of WAN Supported**
  - Enables you to monitor inbound and outbound packets

## Security Functions

- **Packet Filter Supported**  
Packet Filter allows you to control access to a network by analyzing the incoming and outgoing packets and allowing or denying them access based on the IP address of the source and destination.
- **Domain Filter Supported**
  - Lets you prevent users from accessing specified domains through this device.
- **URL Blocking Supported**
  - Lets you prevent users from accessing specified URLs through this device.
- **VPN Pass-Through**
  - Support VPN pass-through.
- **SPI Mode Supported**
  - When SPI Mode is enabled, the router will check every incoming packet to determine if the packet is valid.
- **DoS Attack Detection Supported**
  - When this feature is enabled, the router will detect and log any DoS attack that comes from the Internet.

## Advanced Functions

- **System Time Supported**
  - Allows you to synchronize the system time with a network time server.
- **E-mail Alert Supported**
  - The router can send e-mail alerts to a specified e-mail address.
- **Dynamic DNS Supported**
  - Supports dyndns, TZO.com, and dhs.org.
- **SNMP Supported**
  - Supports basic SNMP functions.
- **Routing Table Supported**
  - Supports static routing table.
- **Schedule Rule Supported**
  - Schedule the time when services such as virtual server or packet filter will be active.

## Other Functions

- **UPNP (Universal Plug-and-Play) Supported**

## 2. Hardware Installation

### 2.1 *Connect the Router*

**Note:** Prior to connecting the router, be sure to power off your computer, DSL/Cable modem, and the router.

**Step 1** Connect one end of a network cable to the **WAN** port of the router and connect the other end of the cable to the DSL/Cable modem.

**Step 2** With another network cable, connect one end of the cable to your computer's network card and connect the other end to one of the **LAN** ports of the router.

**Step 3** Power on the DSL/Cable modem and wait for the lights on the modem to settle down.

**Step 4** Power on the router by connecting one end of the supplied power adapter to the power jack of the router and connecting the other end to an electrical outlet.

**Step 5** Power on your computer.

**Step 6** Make sure the **WAN** and the **LAN** port that the computer is connected to are lit. If not, try the above steps again.

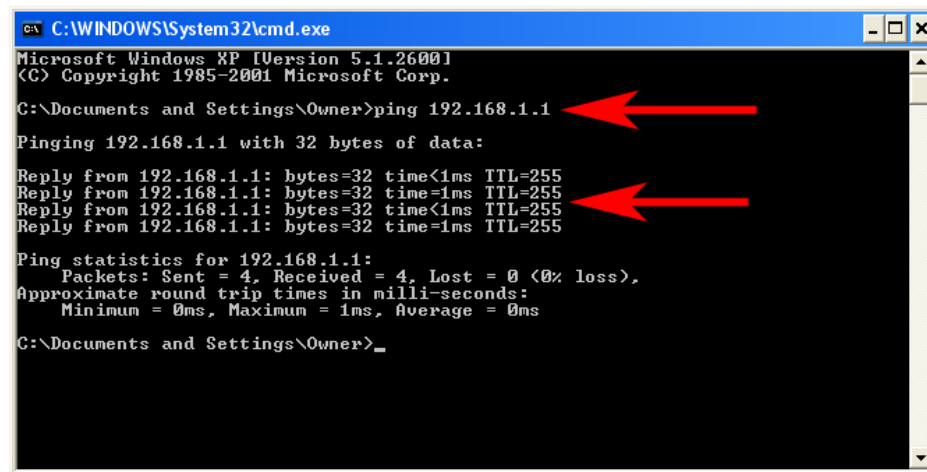
## 2.2 LED Description

LED	Function	Color	Status	Description
POWER	Power indication	Green	On	Device is powered on.
Status	System status indication	Orange	Blinking	M1 flashes once per second to indicate system is active. M2 is lit when system is busy.
WAN	WAN port activity	Green	On	The WAN port is linked.
			Blinking	The WAN port is sending or receiving data.
Reset	M1	Green	Flashing	System is restoring to factory default settings.
Link/Act. 1~4	Link status	Green	On	An active station is connected to the corresponding LAN port.
			Blinking	The corresponding LAN port is sending or receiving data.
10/100	Data Rate	Green	On	Data is transmitting at 100Mbps on the corresponding LAN port.

## 2.3 Verify Connection to Router

**Step 1** Go to **Start, Run**, type **command** (for Windows 95/98/ME) or **cmd** (for Windows 2000/XP) and click **OK**. You will see the command prompt as below.

**Step 2** Type **ping 192.168.1.1** and press **Enter**. You should get four reply responses back.



```
C:\WINDOWS\System32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

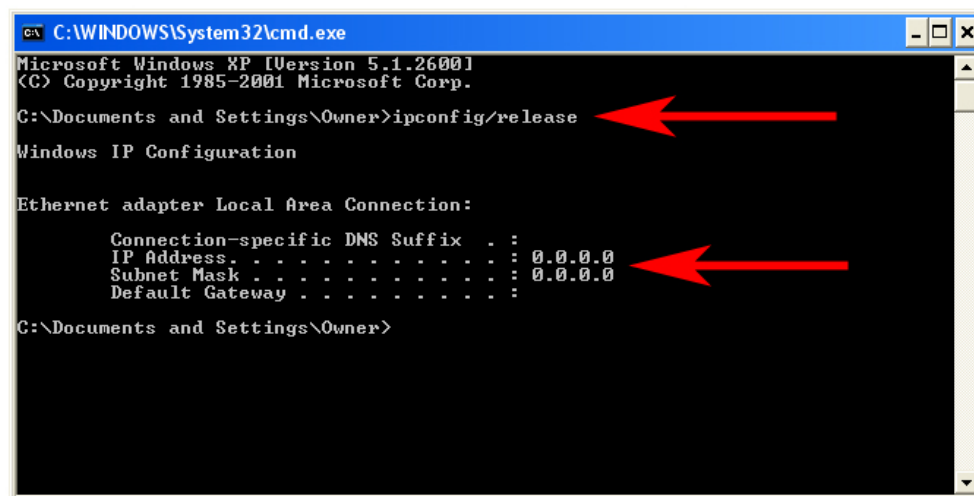
C:\Documents and Settings\Owner>ping 192.168.1.1
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Documents and Settings\Owner>
```

**Step 3** If you get **Request timed out**, or **Destination host unreachable**, double-check the network cable connection between the computer and the router and try **Step 2** again. If you still encounter problem, go to the next step; otherwise proceed to **Section 3, Configure the Router**.

**Step 4** For Windows 2000/XP, type **ipconfig/release** and press **Enter**.



```
C:\WINDOWS\System32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

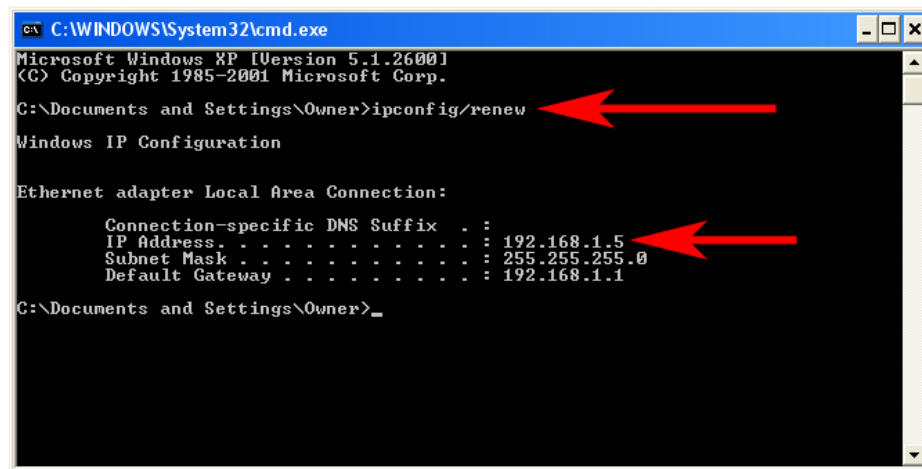
C:\Documents and Settings\Owner>ipconfig/release
Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix . : 
    IP Address. . . . . : 0.0.0.0
    Subnet Mask . . . . . : 0.0.0.0
    Default Gateway . . . . . : 

C:\Documents and Settings\Owner>
```

**Step 5** Type **ipconfig/renew** and press **Enter**. You should get an IP address of **192.168.1.x** (where **x** is a number between 2 - 254). Proceed to **Section 3, Configure the Router**. If you don't get an IP address, reset the router by holding in the reset button at the back of the router for 10 seconds while it is ON and try **ipconfig/renew** again.



```
C:\WINDOWS\System32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Owner>ipconfig/renew

Windows IP Configuration

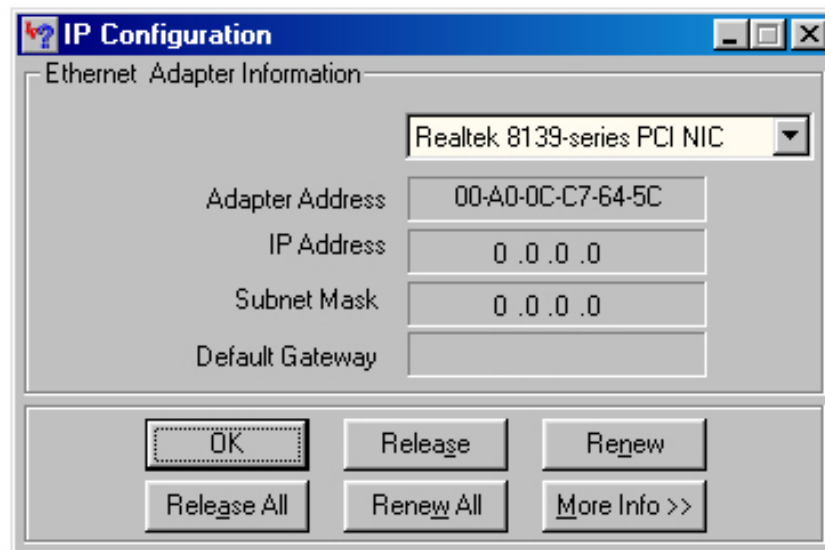
Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IP Address . . . . . : 192.168.1.5
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

C:\Documents and Settings\Owner>
```

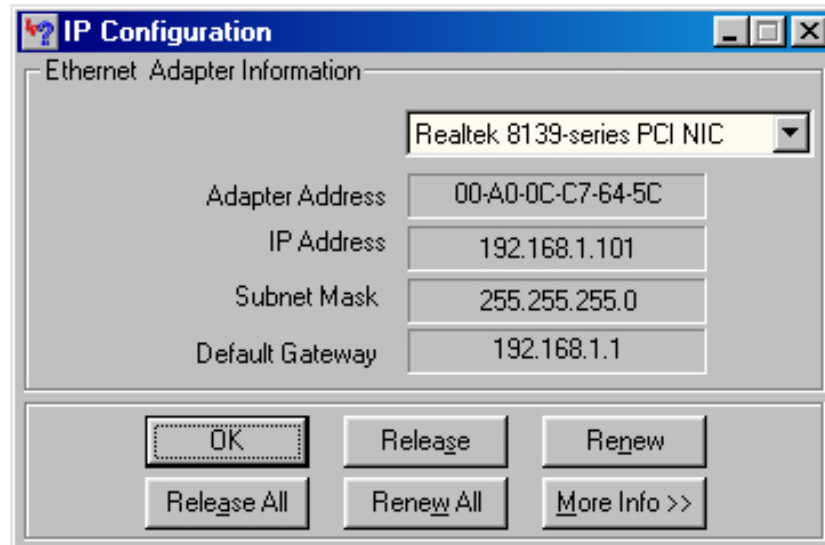
**Step 6** For Windows 95/98/ME go to **Start, Run**, type **winipcfg** and click **OK**.

**Step 7** Select your network card from the drop-down menu and click **Release**.





**Step 8** After your IP address is released, click **Renew**. You should get an IP address of **192.168.1.x** (where **x** is a number between 2 - 254). If you don't get an IP address, reset the router by holding in the reset button at the back of the router for 10 seconds while it is ON and try **Renew** again.



## 3. Configure the Router

### 3.1 Setup Wizard

**Step 1** Open the web browser and type **192.168.1.1** in the URL Address field and press **Enter**.

**Step 2** Enter **admin** for the password field and click **Log in**.

**Step 3** Click on **Wizard** from the main menu to open the Setup Wizard.

**Step 4** Click **Next** to begin the Setup Wizard.

**Step 5** Select your **WAN Type** (Internet Connection Type) and click **Next**. If you are not sure what your Internet Connection Type is, please contact your Internet Service Provider (ISP) for assistance.

**Setup Wizard** - Select WAN Type

- ☐ ISP assigns you a static IP address. (Static IP Address)
- ☐ Obtain an IP address from ISP automatically. (Dynamic IP Address)
- ☐ Dynamic IP Address with Road Runner Session Management. (e.g. Telstra BigPond)
- ☐ Some ISPs require the use of PPPoE to connect to their services. (PPP over Ethernet)
- ☐ Some ISPs require the use of PPTP to connect to their services. (PPTP)
- ☒ Some ISPs require the use of L2TP to connect to their services. (L2TP)

< Back   Undo   Next >

## Static IP

If your ISP provided you with a static IP address, select **ISP assigns you a static IP address (Static IP Address)** and click **Next**. Proceed to **Step 6, Static IP**.

## Cable Modem

If you use cable modem, select **Obtain an IP address from ISP automatically (Dynamic IP Address)** and click **Next**. Proceed to **Step 6, Cable Modem**.

## Road Runner

If your ISP is running Road Runner Session Management, select **Dynamic IP Address with Road Runner Session Management (e.g. Telstra BigPond)** and click **Next**. Proceed to **Step 6, Road Runner**.

## DSL

If you use DSL, select **Some ISPs require the use of PPPoE to connect to their services (PPP over Ethernet)** and click **Next**. Proceed to **Step 6, DSL**.

## PPTP

If you use PPTP, select **Some ISPs require the use of PPTP to connect to their services (PPTP)** and click **Next**. Proceed to **Step 6, PPTP**.

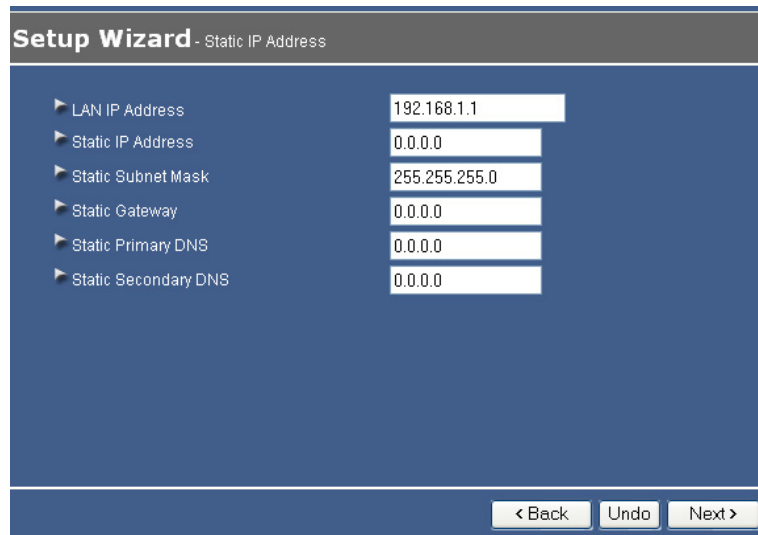
## L2TP

If you use L2TP, select **Some ISPs require the use of L2TP to connect to their services (L2TP)** and click **Next**. Proceed to **Step 6, L2TP**.

**Step 6** Follow the steps below according to your Internet Connection Type.

## Static IP

Fill in the applicable fields according to the information provided by your ISP. Click **Next** when done and proceed to **Step 7**.

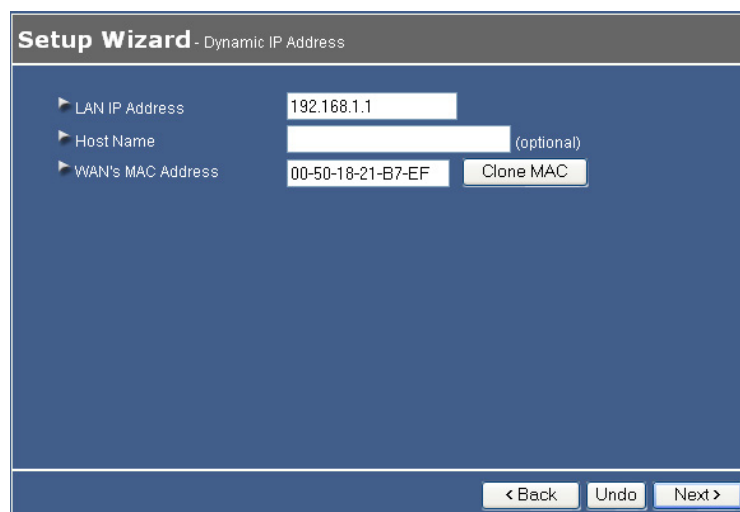


The screenshot shows the 'Setup Wizard - Static IP Address' window. It features a list of configuration fields on the left and their corresponding input boxes on the right. The fields are: LAN IP Address (192.168.1.1), Static IP Address (0.0.0.0), Static Subnet Mask (255.255.255.0), Static Gateway (0.0.0.0), Static Primary DNS (0.0.0.0), and Static Secondary DNS (0.0.0.0). At the bottom right, there are three buttons: '< Back', 'Undo', and 'Next >'.

Field	Value
LAN IP Address	192.168.1.1
Static IP Address	0.0.0.0
Static Subnet Mask	255.255.255.0
Static Gateway	0.0.0.0
Static Primary DNS	0.0.0.0
Static Secondary DNS	0.0.0.0

## Cable Modem

If your ISP has provided you with a host name, enter it in the **Host Name** field. If your ISP requires a registered MAC Address, click on the **Clone MAC** button. Click **Next** when done and proceed to **Step 7**.

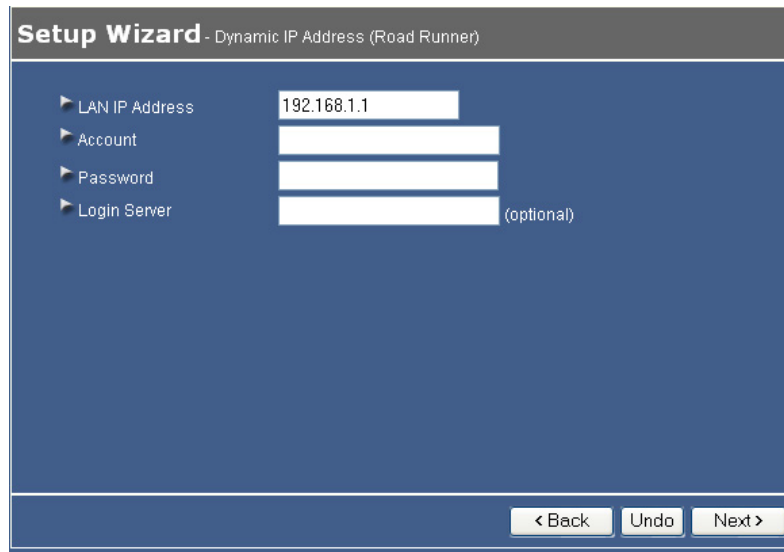


The screenshot shows the 'Setup Wizard - Dynamic IP Address' window. It features a list of configuration fields on the left and their corresponding input boxes on the right. The fields are: LAN IP Address (192.168.1.1), Host Name (optional), and WAN's MAC Address (00-50-18-21-B7-EF). There is a 'Clone MAC' button next to the WAN's MAC Address field. At the bottom right, there are three buttons: '< Back', 'Undo', and 'Next >'.

Field	Value
LAN IP Address	192.168.1.1
Host Name	(optional)
WAN's MAC Address	00-50-18-21-B7-EF

## Road Runner

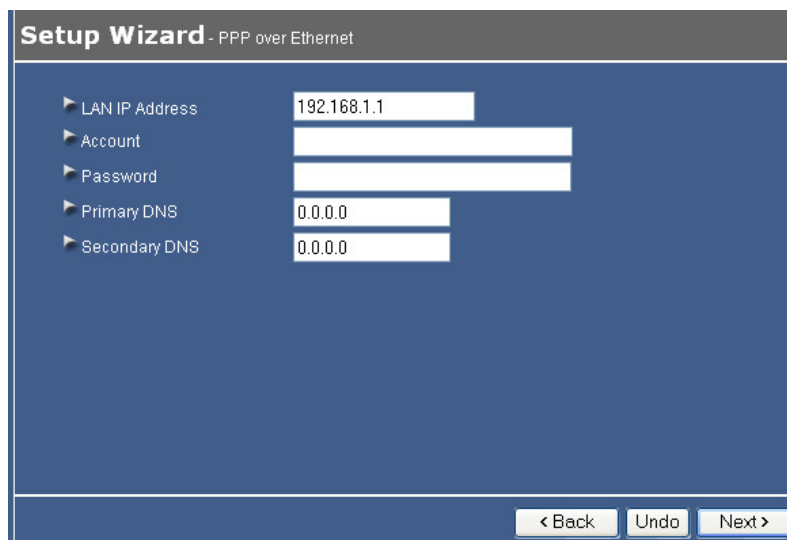
Fill in the applicable fields according to the information provided by your ISP. Click **Next** when done and proceed to **Step 7**.



The screenshot shows a 'Setup Wizard' window titled 'Dynamic IP Address (Road Runner)'. It contains four input fields: 'LAN IP Address' with the value '192.168.1.1', 'Account', 'Password', and 'Login Server' (marked as optional). At the bottom are buttons for '< Back', 'Undo', and 'Next >'.

## DSL

Fill in the applicable fields according to the information provided by your ISP. Click **Next** when done and proceed to **Step 7**.



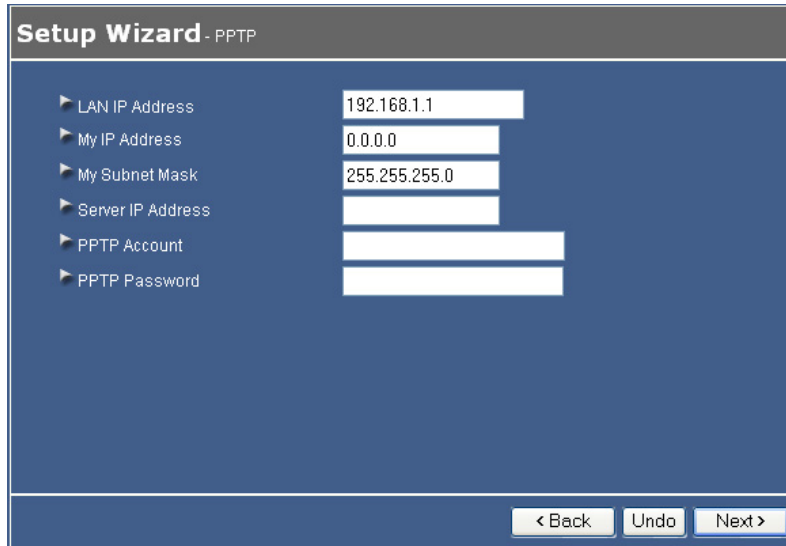
The screenshot shows a 'Setup Wizard' window titled 'PPP over Ethernet'. It contains six input fields: 'LAN IP Address' with the value '192.168.1.1', 'Account', 'Password', 'Primary DNS' with the value '0.0.0.0', and 'Secondary DNS' with the value '0.0.0.0'. At the bottom are buttons for '< Back', 'Undo', and 'Next >'.

**Note:** Depending on the ISP, you may need to include the domain name with your account name.

**Example:** username@sbcglobal.net

## PPTP

Fill in the applicable fields according to the information provided by your ISP. Click **Next** when done and proceed to **Step 7**.



The image shows a 'Setup Wizard - PPTP' window. It has a dark blue header bar with the title 'Setup Wizard - PPTP'. Below the header, there is a list of configuration fields on the left and their corresponding input boxes on the right. The fields are: LAN IP Address (192.168.1.1), My IP Address (0.0.0.0), My Subnet Mask (255.255.255.0), Server IP Address (empty), PPTP Account (empty), and PPTP Password (empty). At the bottom right, there are three buttons: '< Back', 'Undo', and 'Next >'.

Field	Value
LAN IP Address	192.168.1.1
My IP Address	0.0.0.0
My Subnet Mask	255.255.255.0
Server IP Address	
PPTP Account	
PPTP Password	

## L2TP

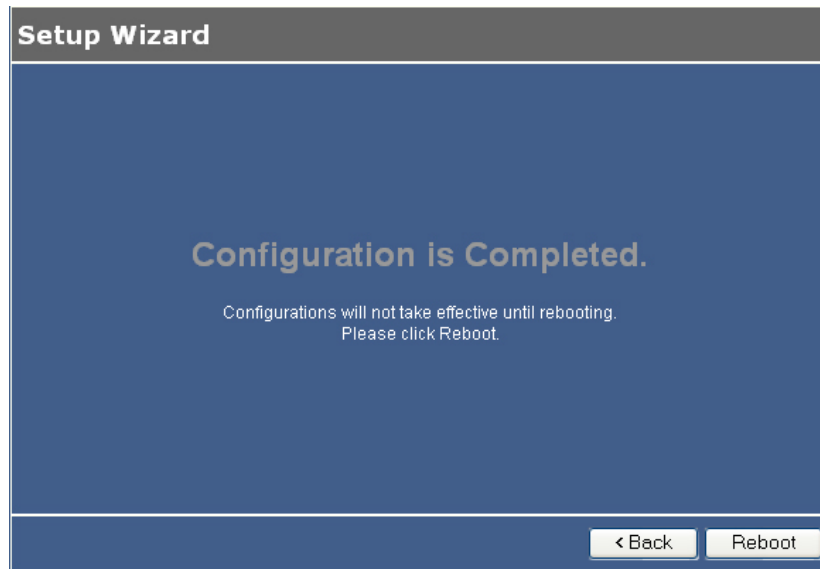
Fill in the applicable fields according to the information provided by your ISP. Click **Next** when done and proceed to **Step 7**.



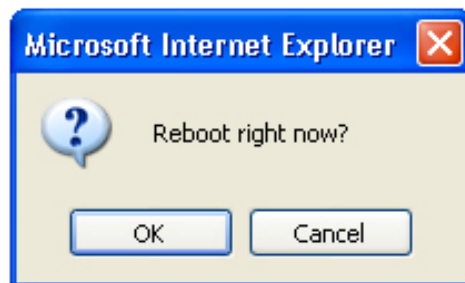
The image shows a 'Setup Wizard - L2TP' window. It has a dark blue header bar with the title 'Setup Wizard - L2TP'. Below the header, there is a list of configuration fields on the left and their corresponding input boxes on the right. The fields are: LAN IP Address (192.168.1.1), IP Mode (Static IP Address), IP Address (0.0.0.0), Subnet Mask (255.255.255.0), WAN Gateway IP (0.0.0.0), Server IP Address/Name (empty), L2TP Account (empty), and L2TP Password (empty). At the bottom right, there are three buttons: '< Back', 'Undo', and 'Next >'.

Field	Value
LAN IP Address	192.168.1.1
IP Mode	Static IP Address
IP Address	0.0.0.0
Subnet Mask	255.255.255.0
WAN Gateway IP	0.0.0.0
Server IP Address/Name	
L2TP Account	
L2TP Password	

**Step 7** Click **Reboot** to apply your settings.



**Step 8** Click **OK** to confirm reboot.



**Step 9** Wait for the router to reboot and proceed to **Section 4, Verify Connection Status**.



## 4. Verify Connection Status

### 4.1 Checking the System Status

View the System Status to verify your Internet connection.

**Step 1** Login to the router's web configuration page and click on the **Status** link from the Main Menu.

**Step 2** Verify that the **WAN Status** displays valid numbers (instead of all 0's).

If you use **Cable modem** and you see all 0's, click on the **Renew** button.

The screenshot shows the 'System Status' page of an AIRLINK 101 4-PORT INTERNET BROADBAND ROUTER. The left sidebar contains a menu with 'Status' selected. The main content area displays a table for WAN Status. The 'WAN Status' column is highlighted with a red box, showing all zeros. The 'Sidenote' column shows a 'Renew' button. Below the WAN Status table is a 'Statistics of WAN' table with 'Inbound' and 'Outbound' columns, all showing zeros. At the bottom, there are buttons for 'View Log...', 'Clients List...', 'Help', and 'Refresh', and a 'Device Time' of 'Thu Jul 01 00:00:19 2004'.

Item	WAN Status	Sidenote
Remaining Lease Time	00:00:00	Renew
IP Address	0.0.0.0	
Subnet Mask	0.0.0.0	
Gateway	0.0.0.0	Unreachable
Domain Name Server	0.0.0.0	

Statistics of WAN	Inbound	Outbound
Octets	0	0
Unicast Packets	0	0
Non-unicast Packets	0	0

View Log... Clients List... Help Refresh  
Device Time: Thu Jul 01 00:00:19 2004

If you use **DSL** and you see all 0's, click on the **Connect** button.

The screenshot shows the 'System Status' page of an AIRLINK 101 4-PORT INTERNET BROADBAND ROUTER. The left sidebar contains a menu with 'Status' selected. The main content area displays a table for WAN Status. The 'WAN Status' column is highlighted with a red box, showing all zeros. The 'Sidenote' column shows a 'Connect' button. Below the WAN Status table is a 'Statistics of WAN' table with 'Inbound' and 'Outbound' columns, showing some data. At the bottom, there are buttons for 'View Log...', 'Clients List...', 'Help', and 'Refresh', and a 'Device Time' of 'Thu Jul 01 00:00:12 2004'.

Item	WAN Status	Sidenote
IP Address	0.0.0.0	PPPoE
Subnet Mask	0.0.0.0	
Gateway	0.0.0.0	Unreachable
Domain Name Server	0.0.0.0	
Connection Time	-	Connect

Statistics of WAN	Inbound	Outbound
Octets	0	168
Unicast Packets	0	0
Non-unicast Packets	0	6

View Log... Clients List... Help Refresh  
Device Time: Thu Jul 01 00:00:12 2004



**Step 3** Once you clicked the **Renew** or **Connect** button, you should see some numbers under **WAN Status**. This means you have successfully established Internet connection.

**4-PORT INTERNET BROADBAND ROUTER**

**System Status**

Item	WAN Status	Sidenote
Remaining Lease Time	01:00:00	<a href="#">Renew</a>
IP Address	192.168.1.14	<a href="#">Release</a>
Subnet Mask	255.255.255.0	
Gateway	192.168.1.1	
Domain Name Server	206.13.28.12, 206.13.31.12	

Statistics of WAN	Inbound	Outbound
Octets	1224	91712
Unicast Packets	5	3
Non-unicast Packets	3	286

[View Log...](#) [Clients List...](#) [Help](#) [Refresh](#)

Device Time: Thu Jul 01 01:15:23 2004

**Note:** If you still see all 0's after clicking on the **Renew** or **Connect** button, try the troubleshooting tips at the end of this manual.

## 5. Web Configuration

### 5.1 Accessing the Web Configuration Utility

You may configure the router through the web browser using the Web Configuration Utility.

**Step 1** Open the web browser and type in **192.168.1.1** and press **Enter**.

**Step 2** Enter **admin** for the password field and click **Log in**.

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**4-PORT INTERNET BROADBAND ROUTER**

**User's Main Menu**

Status

System Password  
(default: admin)  
[Log in](#)

**System Status**

Item	WAN Status	Sidenote
Remaining Lease Time	00:00:00	
IP Address	0.0.0.0	
Subnet Mask	0.0.0.0	
Gateway	0.0.0.0	Unreachable
Domain Name Server	0.0.0.0	

Statistics of WAN	Inbound	Outbound
Octets	0	42
Unicast Packets	0	0
Non-unicast Packets	0	1

[Help](#) [Refresh](#) Device Time: Thu Jul 01 00:00:12 2004

You will see the Web Configuration Utility's home page (System Status). You can navigate through the utility from the Main Menu located at the left side of the page.

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**4-PORT INTERNET BROADBAND ROUTER**

**System Status**

Status

Setup Wizard

+ Basic Setting

+ Forwarding Rules

+ Security Setting

+ Advanced Setting

+ Toolbox

[Log out](#)

Item	WAN Status	Sidenote
IP Address	66.85.153.18	Static IP
Subnet Mask	255.255.255.0	
Gateway	0.0.0.0	Unreachable
Domain Name Server	0.0.0.0	

Statistics of WAN	Inbound	Outbound
Octets	0	0
Unicast Packets	0	0
Non-unicast Packets	0	0

[View Log...](#) [Clients List...](#) [Help](#) [Refresh](#)

Device Time: Thu Jul 01 00:00:10 2004

## 5.2 Basic Setting

### 5.2.1 Primary Setup

You can set the router's LAN IP address and change the WAN type (Internet Connection Type) on this page.

Item	Setting
LAN IP Address	192.168.1.1
WAN Type	Dynamic IP Address <a href="#">Change...</a>
Host Name	<input type="text"/> (optional)
WAN's MAC Address	00-50-18-21-B7-EF <a href="#">Clone MAC</a>
Renew IP Forever	<input type="checkbox"/> Enable (Auto-reconnect)

[Save](#) [Undo](#) [Virtual Computers...](#) [Help](#)

[Log out](#)

**LAN IP Address:** The router's default IP address is **192.168.1.1**. You can change this address to suit your existing network.

**WAN Type:** Displays the current WAN type (Internet Connection Type) selected. Click the **Change** button to change the WAN type.

The following describes the various WAN types supported by the router:

#### Dynamic IP Address (For Cable Modem)

Item	Setting
LAN IP Address	192.168.1.1
WAN Type	Dynamic IP Address <a href="#">Change...</a>
Host Name	<input type="text"/> (optional)
WAN's MAC Address	00-50-18-21-B7-EF <a href="#">Clone MAC</a>
Renew IP Forever	<input type="checkbox"/> Enable (Auto-reconnect)

[Save](#) [Undo](#) [Virtual Computers...](#) [Help](#)

[Log out](#)

**Host Name (optional):** Some ISPs require a registered host name to connect to their services. Enter the host name provided by your ISP, if applicable.

**WAN's MAC Address:** Some ISPs require a registered MAC address to connect to their services. Either manually enter the MAC address or click the Clone MAC button.

**Renew IP Forever:** Checking the **Enable** box will allow the router to automatically renew the IP address automatically when the lease time is expired.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## Static IP Address

The screenshot shows the 'Primary Setup' page for the AIRLINK 101 4-PORT INTERNET BROADBAND ROUTER. The left sidebar contains a navigation menu with options: Status, Setup Wizard (Basic Setting, Primary Setup, DHCP Server, Change Password), Forwarding Rules, Security Setting, Advanced Setting, and Toolbox. The main content area is titled 'Primary Setup' and contains a table with two columns: 'Item' and 'Setting'.

Item	Setting
LAN IP Address	192.168.1.1
WAN Type	Static IP Address <a href="#">Change...</a>
WAN IP Address	66.85.153.18
WAN Subnet Mask	255.255.255.0
WAN Gateway	0.0.0.0
Primary DNS	0.0.0.0
Secondary DNS	0.0.0.0

At the bottom of the table are buttons: Save, Undo, Virtual Computers..., and Help. A 'Log out' button is located at the bottom left of the page.

If your ISP assigns you static IP address, they will provide you the information for WAN IP Address, WAN Subnet Mask, WAN Gateway, Primary and Secondary DNS.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## Road Runner

The screenshot shows the 'Primary Setup' page for the AIRLINK 101 4-PORT INTERNET BROADBAND ROUTER. The left sidebar contains a navigation menu with options: Status, Setup Wizard (Basic Setting, Primary Setup, DHCP Server, Change Password), Forwarding Rules, Security Setting, Advanced Setting, and Toolbox. The main content area is titled 'Primary Setup' and contains a table with two columns: 'Item' and 'Setting'.

Item	Setting
LAN IP Address	192.168.1.1
WAN Type	Dynamic IP Address <a href="#">Change...</a>
Account	
Password	
Login Server	(optional)
Renew IP Forever	<input type="checkbox"/> Enable (Auto-reconnect)

At the bottom of the table are buttons: Save, Undo, Virtual Computers..., and Help. A 'Log out' button is located at the bottom left of the page.

Enter the **Account name** and **Password** required to connect to your ISP. Some ISPs require an additional **Login Server**.

**Renew IP Forever:** Checking the **Enable** box will allow the router to automatically renew the IP address automatically when the lease time is expired.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## DSL (PPPoE)

Item	Setting
LAN IP Address	192.168.1.1
WAN Type	PPP over Ethernet <a href="#">Change...</a>
PPPoE Account	<input type="text"/>
PPPoE Password	<input type="password"/>
Primary DNS	0.0.0.0
Secondary DNS	0.0.0.0
Maximum Idle Time	600 seconds <input type="checkbox"/> Auto-reconnect
PPPoE Service Name	<input type="text"/> (optional)
Assigned IP Address	0.0.0.0 (optional)

[Save](#) [Undo](#) [Help](#) [Log out](#)

**LAN IP Address:** The router's default IP address is **192.168.1.1**. You can change this address to suit your existing network.

Enter the **Account name** and **Password** required to connect to your ISP. Some ISPs require you to include the domain name with your account name in the Account name field. Example: username@sbcglobal.net

**Primary DNS and Secondary DNS:** If your ISP provided you with the IP address of the Primary and Secondary DNS servers, you may enter them in the respective field.

**Maximum Idle Time (in seconds):** Enter the maximum idle time (in seconds) before the router disconnects the PPPoE session.

**Auto-reconnect (check box):** Checking this box enables the router to automatically reconnect to the Internet once the connection is dropped.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## PPTP

Item	Setting
LAN IP Address	192.168.1.1
WAN Type	PPTP <a href="#">Change...</a>
My IP Address	0.0.0.0
My Subnet Mask	255.255.255.0
Server IP Address	
PPTP Account	
PPTP Password	
Connection ID	(optional)
Maximum Idle Time	600 seconds <input type="checkbox"/> Auto-reconnect

Enter the information provided by your ISP in the respective fields.

**Connection ID (optional):** Some ISPs require the use of a connection ID.

**Maximum Idle Time (in seconds):** Enter the maximum idle time (in seconds) before the router disconnects the PPPoE session.

**Auto-reconnect (check box):** Checking this box enables the router to automatically reconnect to the Internet once the connection is dropped.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## L2TP

Item	Setting
LAN IP Address	192.168.1.1
WAN Type	L2TP <a href="#">Change...</a>
IP Mode	Static IP Address
IP Address	66.85.153.18
Subnet Mask	255.255.255.0
WAN Gateway IP	0.0.0.0
Server IP Address/Name	
L2TP Account	
L2TP Password	
Maximum Idle Time	600 seconds <input type="checkbox"/> Auto-reconnect

**IP Mode:** Use the drop-down menu to select either **Static IP Address** or **Dynamic IP Address** depending on your ISP.

Enter the information provided by your ISP in the respective fields.

**Maximum Idle Time (in seconds):** Enter the maximum idle time (in seconds) before the router disconnects the PPPoE session.

**Auto-reconnect (check box):** Checking this box enables the router to automatically reconnect to the Internet once the connection is dropped.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## Virtual Computers

ID	Global IP	Local IP	Enable
1		192.168.123	<input type="checkbox"/>
2		192.168.123	<input type="checkbox"/>
3		192.168.123	<input type="checkbox"/>
4		192.168.123	<input type="checkbox"/>
5		192.168.123	<input type="checkbox"/>

Save Undo Help

Log out

The Virtual Computer function enables you map the Global IP (WAN IP address) assigned by your ISP to the Local IP (LAN IP address) of your computer.

**Global IP:** Enter the global IP address (WAN IP) assigned by your ISP.

**Local IP:** Enter the local IP address (LAN IP) of your computer you wish to map to.

**Enable (check box):** Check this box to enable the Virtual Computer function.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## 5.2.2 DHCP Server

This page allows you to configure the DHCP service of the router. DHCP assigns dynamic IP address to all the network devices connected to the router.

Item	Setting
DHCP Server	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
IP Pool Starting Address	100
IP Pool Ending Address	199
Domain Name	
Primary DNS	0.0.0.0
Secondary DNS	0.0.0.0
Primary WINS	0.0.0.0
Secondary WINS	0.0.0.0
Gateway	0.0.0.0 (optional)

**DHCP Server:** Select either to **Enable** or **Disable** the DHCP service (Default is **Enable**).

**IP Pool Starting Address:** Enter the start of the IP pool range.

**IP Pool Ending Address:** Enter the end of the IP pool range.

**Domain Name:** Enter the domain name of your network (optional).

Click on the **More>>** button to see the following fields. (**The following fields are optional**).

**Primary DNS:** Enter the IP address of your network's Primary DNS server.

**Secondary DNS:** Enter the IP address of your network's Secondary DNS server.

**Primary WINS:** Enter the IP address of your network's Primary WINS server.

**Secondary WINS:** Enter the IP address of your network's Secondary WINS server.

**Gateway:** Enter the IP address of your network's Gateway.

Click **Save** to save any changes or click **Undo** to cancel any changes.



## Clients List

The Clients List displays all the DHCP clients currently connected to the router.

The screenshot shows the web interface of the AIRLINK 101 4-PORT INTERNET BROADBAND ROUTER. The page title is "DHCP Clients List". On the left is a navigation menu with options: Status, Setup Wizard (Basic Setting, Primary Setup, DHCP Server, Change Password), Forwarding Rules, Security Setting, Advanced Setting, and Toolbox. A "Log out" button is at the bottom of the menu. The main content area has a table with headers: IP Address, Host Name, MAC Address, and Select. Below the table are four buttons: Wake up, Delete, Back, and Refresh.

To perform the first two functions, select a client from the list first.

**Wake up:** Sends a wake up packet to the target client. The target client must support the wake up function.

**Delete:** Deletes the client from the list.

**Back:** Returns to the previous page.

**Refresh:** Updates the Clients List.

### 5.2.3 Change Password

This page allows you to change the router's login password. It is recommended that you change the password for extra security.

The screenshot shows the web interface of the AIRLINK 101 4-PORT INTERNET BROADBAND ROUTER. The page title is "Change Password". On the left is a navigation menu with options: Status, Setup Wizard (Basic Setting, Primary Setup, DHCP Server, Change Password), Forwarding Rules, Security Setting, Advanced Setting, and Toolbox. A "Log out" button is at the bottom of the menu. The main content area has a table with headers: Item and Setting. Below the table are three input fields for Old Password, New Password, and Reconfirm. At the bottom are two buttons: Save and Undo.

**Old Password:** Enter the current login password.

**New Password:** Enter the new login password.

**Reconfirm:** Enter the new login password again.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## 5.3 Forwarding Rules

### 5.3.1 Virtual Server

If you want to allow Internet users to access your internal web server or ftp server, you can use the Virtual Server function to open up the ports required to access your internal servers.

**Virtual Server**

ID	Service Ports	Server IP	Enable	Use Rule#
1		192.168.1.	<input type="checkbox"/>	0
2		192.168.1.	<input type="checkbox"/>	0
3		192.168.1.	<input type="checkbox"/>	0
4		192.168.1.	<input type="checkbox"/>	0
5		192.168.1.	<input type="checkbox"/>	0
6		192.168.1.	<input type="checkbox"/>	0
7		192.168.1.	<input type="checkbox"/>	0
8		192.168.1.	<input type="checkbox"/>	0
9		192.168.1.	<input type="checkbox"/>	0
10		192.168.1.	<input type="checkbox"/>	0
11		192.168.1.	<input type="checkbox"/>	0
12		192.168.1.	<input type="checkbox"/>	0
13		192.168.1.	<input type="checkbox"/>	0
14		192.168.1.	<input type="checkbox"/>	0
15		192.168.1.	<input type="checkbox"/>	0
16		192.168.1.	<input type="checkbox"/>	0
17		192.168.1.	<input type="checkbox"/>	0
18		192.168.1.	<input type="checkbox"/>	0
19		192.168.1.	<input type="checkbox"/>	0
20		192.168.1.	<input type="checkbox"/>	0

Well known services:  Copy to:

Schedule rule:

**Service Ports:** Enter the service port you wish to open to the Internet.

**Server IP:** Enter the LAN IP address of the server you want the Internet users to access.

**Enable (check box):** Check on this box to open the port.

**Use Rule# (optional):** Enter the Schedule Rule # you wish to apply to the ID. For more information about using the Schedule Rule #, please see **5.5.6 Schedule Rule**.

**Well known services:** You can choose from a list of frequently used services to copy the port number to the **Service Ports** field.

**Copy to (button):** Select the **ID #** (1 ~ 20) you want to paste the service to first and then click on this button to paste the port number to the **Service Ports** field.

**Schedule rule:** If you have configured any schedule rule, you can select the rule from this list and apply the rule to the specified ID. For more information about using the schedule rule, please see **5.5.6 Schedule Rule**.

Click **Save** to save any changes or click **Undo** to cancel any changes.

### 5.3.2 Special AP

Some applications require multiple connections, like Internet games, video conferencing, Internet telephony, etc. Because of the router's built-in firewall, these applications cannot work with a pure NAT router. The **Special Applications** feature allows some of these applications to bypass the firewall. If the Special Applications feature fails to make an application work, try setting your computer as a **DMZ** host instead. For more information about setting your computer as a DMZ host, please see **5.3.3 Miscellaneous**.

ID	Trigger	Incoming Ports	Enable
1			<input type="checkbox"/>
2			<input type="checkbox"/>
3			<input type="checkbox"/>
4			<input type="checkbox"/>
5			<input type="checkbox"/>
6			<input type="checkbox"/>
7			<input type="checkbox"/>
8			<input type="checkbox"/>

Popular applications: select one Copy to ID

Save Undo Help

**Trigger:** Enter the Outbound port number used by the application.

**Incoming Ports:** Enter the Incoming port number used by the application.

**Enable (check box):** Check this box to open the ports.

**Popular applications:** Select from a list of popular applications.

**Copy to (button):** Select the **ID #** (1 ~ 8) you want to paste the port numbers to first and then click on this button to paste the port numbers to the applicable fields.

Click **Save** to save any changes or click **Undo** to cancel any changes.

### 5.3.3 Miscellaneous

DMZ (De-Militarized Zone) Host is a host without the protection of the router's firewall. It allows a computer to be exposed to unrestricted two-way communication with the Internet. You should only use this feature when the Special Applications function fails to make an application work.

**Warning:** Setting your computer as a DMZ host exposes it to various security vulnerabilities. This feature should be used only when needed.

The screenshot displays the 'Miscellaneous Items' configuration page for an AIRLINK 101 4-PORT INTERNET BROADBAND ROUTER. The page has a dark blue background with a sidebar on the left containing navigation links: Status, Setup Wizard, Basic Setting, Forwarding Rules, Virtual Server, Special AP, Miscellaneous, Security Setting, Advanced Setting, and Toolbox. The main content area is titled 'Miscellaneous Items' and contains a table with two rows of settings. The first row is 'IP Address of DMZ Host' with a value of '192.168.1' and an 'Enable' checkbox. The second row is 'Non-standard FTP port' with a value of '0'. Below the table are 'Save', 'Undo', and 'Help' buttons. A 'Log out' button is located at the bottom left of the page.

Item	Setting	Enable
IP Address of DMZ Host	192.168.1	<input type="checkbox"/>
Non-standard FTP port	0	

**IP Address of DMZ Host:** Enter the LAN IP address of the computer you wish to set as the DMZ host and check on the **Enable** box.

**Non-standard FTP port:** If your FTP server operates with a non-standard FTP port, enter the port number in this field.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## 5.4 Security Setting

### 5.4.1 Packet Filter

Packet Filter enables you to control which packets are allowed to pass through the router. Outbound filter applies on all outbound packets. However, Inbound filter applies to packets that are destined to Virtual Servers or DMZ host only.

The screenshot shows the 'Outbound Packet Filter' configuration page for a 4-Port Internet Broadband Router. The page has a sidebar on the left with navigation links: Status, Setup Wizard, Basic Setting, Forwarding Rules, Security Setting (with sub-links for Packet Filters, Domain Filters, URL Blocking, MAC Control, and Miscellaneous), Advanced Setting, and Toolbox. The main content area is titled 'Outbound Packet Filter' and includes a table for configuring 8 rules. The table has columns for ID, Source IP: Ports, Destination IP: Ports, Enable, and Use Rule#. Below the table, there are buttons for 'Save', 'Undo', 'Inbound Filter...', 'MAC Level...', and 'Help'. At the bottom, there is a 'Schedule rule' dropdown set to '(00)Always' and a 'Copy to' dropdown set to 'ID'.

ID	Source IP : Ports	Destination IP : Ports	Enable	Use Rule#
1			<input type="checkbox"/>	0
2			<input type="checkbox"/>	0
3			<input type="checkbox"/>	0
4			<input type="checkbox"/>	0
5			<input type="checkbox"/>	0
6			<input type="checkbox"/>	0
7			<input type="checkbox"/>	0
8			<input type="checkbox"/>	0

Outbound Packet Filter is the default packet filter page. To change to Inbound Packet Filter, click on the **Inbound Filter** button.

You can select one of the two filtering policies:

1. Allow all [packets] to pass except those [that] match the specified rules
2. Deny all [packets] to pass except those [that] match the specified rules

Check on the **Enable** box to activate the packet filter function.

You can specify up to 8 filters for each direction. For each rule (ID), you can define the following parameters:

- Source IP address
- Source port address
- Destination IP address
- Destination port address
- Protocol: TCP or UDP or both.
- Use Rule#

For source or destination IP address, you can define a single IP address (192.168.1.100) or a range of IP addresses (192.168.1.1001-192.168.1.254). An empty field implies all IP addresses.

For source or destination port, you can define a single port (80) or a range of ports (1000-1999). Add the prefix "T" or "U" to specify TCP or UDP protocol.

For example: T80, U53, or U2000-2999. No prefix indicates both TCP and UDP are defined. An empty field implies all ports.

Packet Filter can work with **Schedule Rule**, allowing precise control of when the filters will be active. For more details about Schedule Rule, please see **5.5.6 Schedule Rule**.

Each rule can be enabled or disabled individually by checking or clearing the corresponding **Enable** box for each rule.

Click **Save** to save any changes or click **Undo** to cancel any changes.

### Example of using the Packet Filter:

Suppose you want the local clients in your network with the IP address range of 1.2.3.100–1.2.3.200 to do everything except reading the net news (port 119) and transferring files via FTP (port 21), you would enter the following parameters:

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**4-PORT INTERNET BROADBAND ROUTER**

### Outbound Packet Filter

**Outbound Filter** ☐ Enable

☒ Allow all to pass except those match the following rules.  
☐ Deny all to pass except those match the following rules.

ID	Source IP : Ports	Destination IP : Ports	Enable	Use Rule#
1	1.2.3.100-1.2.3.200	119	<input checked="" type="checkbox"/>	0
2	1.2.3.100-1.2.3.200	21	<input checked="" type="checkbox"/>	0
3			<input type="checkbox"/>	0
4			<input type="checkbox"/>	0
5			<input type="checkbox"/>	0
6			<input type="checkbox"/>	0
7			<input type="checkbox"/>	0
8			<input type="checkbox"/>	0

Schedule rule: (00)Always

## 5.4.2 Domain Filter

Domain Filter lets you prevent users from accessing any specified domain.

**Domain Filter**

ID	Domain Suffix	Action	Enable
1		<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input checked="" type="checkbox"/>
2		<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
3		<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
4		<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
5		<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
6		<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
7		<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
8		<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
9		<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>
10	* (all others)	<input type="checkbox"/> Drop <input type="checkbox"/> Log	<input type="checkbox"/>

Save Undo Help

**Domain Filter:** Check the **Enable** box to activate the Domain Filter function.

**Log DNS Query:** Check the **Enable** box to log the action of someone trying to access the specified domain.

**Privilege IP Addresses Range:** Any IP address that falls between the specified range will be exempt from the domain filter.

**Domain Suffix:** Enter any domain suffix you wish to filter. For example: something.com

**Action:** You can choose to **Drop** (block) and/or **Log** the action of someone trying to access a domain that matches the specified filter.

**Enable (check box):** Check the box to enable each filter.

Click **Save** to save any changes or click **Undo** to cancel any changes.

### 5.4.3 URL Blocking

URL Blocking will block the local computers from accessing pre-defined web sites. The main difference between Domain filter and URL Blocking is that Domain filter requires you to input a suffix like .com or .org, etc., while URL Blocking only requires you to input a keyword. In other words, Domain filter can block a specific web site, while URL Blocking can block hundreds of web sites that contain the specified keyword.

The screenshot shows the configuration interface for the AIRLINK 101 4-PORT INTERNET BROADBAND ROUTER. The main section is titled "URL Blocking". On the left is a sidebar with a "Setup Wizard" menu. The "URL Blocking" menu item is selected. The main area contains a table with 10 rows, each with an "ID" (1-10), a "URL" input field, and an "Enable" checkbox. An "Enable" checkbox is also present at the top of the table. At the bottom are "Save", "Undo", and "Help" buttons.

ID	URL	Enable
1		<input type="checkbox"/>
2		<input type="checkbox"/>
3		<input type="checkbox"/>
4		<input type="checkbox"/>
5		<input type="checkbox"/>
6		<input type="checkbox"/>
7		<input type="checkbox"/>
8		<input type="checkbox"/>
9		<input type="checkbox"/>
10		<input type="checkbox"/>

**URL Blocking:** Check the **Enable** box to activate the URL Blocking function.

**URL:** Enter a keyword in this field. If any part of the web site's URL matches the keyword, the connection will be blocked. For example, you can specify the keyword "something" to block access to all the web sites that have the word "something" in their URLs.

**Enable (check box):** Check the box to enable each filter.

Click **Save** to save any changes or click **Undo** to cancel any changes.



## 5.4.4 MAC Address Control

MAC Address Control allows you to assign different access rights for different users and to assign a specific IP address to a certain MAC address.

The screenshot shows the 'MAC Address Control' configuration page for the AIRLINK 101 4-PORT INTERNET BROADBAND ROUTER. The page has a sidebar on the left with navigation options: Status, Setup Wizard, Basic Setting, Forwarding Rules, Security Setting, Packet Filters, Domain Filters, URL Blocking, MAC Control, Miscellaneous, Advanced Setting, and Toolbox. The main content area is titled 'MAC Address Control' and contains a table with columns for ID, MAC Address, IP Address, and C (Connection control). The table has 4 rows, each with a text input for MAC Address, a dropdown for IP Address (showing 192.168.1), and a checkbox for C. Above the table, there are checkboxes for 'Enable' and 'Connection control', and a dropdown for 'allow' or 'deny'. Below the table, there is a 'DHCP clients' dropdown and a 'Copy to' button. At the bottom, there are buttons for '<< Previous', 'Next >>', 'Save', 'Undo', and 'Help', along with a 'Log out' button.

**MAC Address Control:** Check the **Enable** box to activate the MAC Address Control function.

**Connection control (check box):** Check this box to specify which clients are allowed or denied connection to the router. When this box is checked, the clients listed in the MAC Address table with the C box checked will be subject to the Connection control setting. Choose **allow** to allow those clients with the C box checked to connect to the router. Choose **deny** to deny those clients with the C box checked from accessing the router.

**MAC Address:** Enter the MAC Address of the client.

**IP Address:** Enter the IP Address of the client.

**C (check box):** Check this box to make the client obey the Connection control rule.

**DHCP clients:** Any DHCP client that is currently connected to the router will be listed here. You can choose any client from the list then select the ID # you wish to paste the information to and click the **Copy to** button. All the information will be pasted to the specified ID #.

**Previous and Next (buttons):** There are a total of 32 IDs you can apply to the MAC Address Table. Click on the **Previous** or **Next** button to view the previous or next page.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## 5.4.5 Miscellaneous Items

Item	Setting	Enable
Remote Administrator Host / Port	0.0.0.0 / 88	<input type="checkbox"/>
Administrator Time-out	600 seconds (0 to disable)	<input type="checkbox"/>
Discard PING from WAN side		<input type="checkbox"/>

**Remote Administrator Host/Port:** In general, only local users can browse the router's built-in web configuration utility to perform administration tasks. Remote Administration enables you to perform administrative tasks from remote host.

If this feature is enabled, only the host with the specified IP address can perform remote administration. If the specified IP address is 0.0.0.0, any host can connect to the router to perform administrative tasks. You can use subnet mask bits "/nn" notation to specify a group of trusted IP addresses. For example: 10.1.2.0/24.

**Note:** When Remote Administration is enabled, the web server port will be shifted to 88. You can change web server port to other ports, too.

**Administrator Time-out:** Idle time to wait (in seconds) before logging out automatically. Set it to zero to disable this feature.

**Discard PING from WAN side:** When this feature is enabled, any host on the WAN (Internet side) cannot ping the router.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## 5.5 Advanced Settings

### 5.5.1 System Time

This page allows you to configure the system time of your router.

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**4-PORT INTERNET BROADBAND ROUTER**

### System Time

Item	Setting
<input checked="" type="radio"/> Get Date and Time by NTP Protocol	<input type="button" value="Sync Now!"/>
Time Server	time.nist.gov
Time Zone	(GMT-08:00) Pacific Time (US & Canada)
<input type="radio"/> Set Date and Time using PC's Date and Time	PC Date and Time: Friday, August 20, 2004 10:22:42 AM
<input type="radio"/> Set Date and Time manually	Date: Year: 2004, Month: Jul, Day: 1 Time: Hour: 0 (0-23), Minute: 0 (0-59), Second: 0 (0-59)

**Get Date and Time by NTP Protocol:** Select this option if you want to obtain the time from a Network Time Server.

**Time Server:** Select the time server you want to sync with.

**Time Zone:** Select your time zone.

Click the **Sync Now** button to obtain the time from the selected time server.

**Set Date and Time using PC's Date and Time:** Select this option if you want to obtain the time from your PC.

**PC Date and Time:** Displays your PC's current date and time.

**Set Date and Time manually:** Select this option if you want to manually set the date and time.

**Date:** Manually set the **Year**, **Month**, and **Date**.

**Time:** Manually set the **Hour**, **Minute**, and **Second**.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## 5.5.2 System Log

This page allows you to export the system logs to specific destination by means of syslog (UDP) and SMTP (TCP).

Item	Setting	Enable
IP Address for Syslogd	192.168.1.	<input type="checkbox"/>
IP Address of Outgoing Mail Server		<input type="checkbox"/>
Log or Alert Recipient		<input type="checkbox"/>

View Log... Save Undo Help

Log out

**IP Address for Syslog:** Enter the destination IP Address where the syslog will be sent to. Be sure to check the **Enable** box.

**IP Address of Outgoing Mail Server:** Input the SMTP server IP and port. If you do not specify a port number, the default value (25) is used.

**Log or Alert Recipient:** Enter the e-mail address of the recipient who should receive the logs or alerts. Be sure to check the **Enable** box.

**View Log (button):** Displays the system log.

Click **Save** to save any changes or click **Undo** to cancel any changes.

### 5.5.3 Dynamic DNS

Dynamic DNS allows any user who wishes to access your server to reach it by a registered DNS name instead of an IP address. Before you enable **Dynamic DNS**, you need to register an account with one of the Dynamic DNS servers listed in the **Provider** field.

Item	Setting
DDNS	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Provider	DynDNS.org(Dynamic) ▼
Host Name	<input type="text"/>
Username / E-mail	<input type="text"/>
Password / Key	<input type="text"/>

Save Undo Help

Log out

**DDNS:** Choose to enable or disable DDNS.

**Provider:** Select the DDNS provider that you registered the account with.

Enter your **Host Name**, **Username**, and **password** for the DDNS account in the respective fields.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## 5.5.4 Routing

The Routing Table allows you to set which network interface address to use for outgoing IP data grams. If you have more than one router and subnet, you will need to configure the routing table to direct the packets to follow the proper routing path so different subnets can communicate with each other.

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**Routing Table**

ID	Destination	Subnet Mask	Gateway	Hop	Enable
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
8	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

Save Undo Help

Log out

You can specify up to 8 routing rules. Enter the destination IP address, subnet mask, gateway, and the hop required for each rule. Check the **Enable** box to activate the rule.

Click **Save** to save any changes or click **Undo** to cancel any changes.

## 5.5.5 Schedule Rule

The Schedule Rule allows you to set the time when certain services will be on or off. Schedule Rule works in conjunction with Virtual Server and Packet Filter to determine when these services will be active or inactive.

The screenshot shows the configuration interface for the AIRLINK 101 4-PORT INTERNET BROADBAND ROUTER. The sidebar on the left includes options like Status, Setup Wizard, Basic Setting, Forwarding Rules, Security Setting, and Advanced Setting. The main content area is titled 'Schedule Rule' and contains a table with columns 'Item' and 'Setting'. The 'Item' column has a dropdown menu with 'Schedule' selected. The 'Setting' column has a checkbox labeled 'Enable'. Below the table, there are buttons for 'Save', 'Add New Rule...', and 'Help'.

**Schedule:** Check the **Enable** box to activate the Schedule Rule function.

Click on **Add New Rule** button to add a new schedule rule.

The screenshot shows the configuration interface for the AIRLINK 101 4-PORT INTERNET BROADBAND ROUTER, specifically the 'Schedule Rule Setting' page. The sidebar on the left is the same as the previous screenshot. The main content area is titled 'Schedule Rule Setting' and contains a table with columns 'Item' and 'Setting'. The 'Item' column has a dropdown menu with 'Name of Rule 1' selected. The 'Setting' column has a text input field. Below the table, there are buttons for 'Save', 'Undo', 'Help', and 'Back'. The table also includes a 'Week Day' column with a list of days (Sunday through Saturday and Every Day) and two columns for 'Start Time (hh:mm)' and 'End Time (hh:mm)', each with a grid of input fields.

**Name of Rule:** Enter a descriptive name for the new rule.

Set the day and time that the rule applies to. In the above example, the rule is called ftp time, and it is set to be active every day from 14:00 ~ 18:00 (2:00 pm ~ 6:00 pm).

Click **Save** to save any changes or click **Undo** to cancel any changes.

Once you have created the new rule, you can call up this rule from the Virtual Server and Packet Filter page and apply the schedule rule to any IDs in the Virtual Server or Packet Filter page.

### Example of using the Schedule Rule with Virtual Server:

Suppose you've set up a FTP server in the Virtual Server page, but you only want users to access the FTP server everyday between the hours of 2:00 pm to 6:00 pm. First create the schedule rule with the desired parameters, then go to the Virtual Server page and select the rule from the Schedule Rule drop-down menu.

ID	Service Ports	Server IP	Enable	Use Rule#
1	21	192.168.1.32	<input checked="" type="checkbox"/>	0
2		192.168.1.	<input type="checkbox"/>	0
3		192.168.1.	<input type="checkbox"/>	0
4		192.168.1.	<input type="checkbox"/>	0
5		192.168.1.	<input type="checkbox"/>	0
6		192.168.1.	<input type="checkbox"/>	0
7		192.168.1.	<input type="checkbox"/>	0
8		192.168.1.	<input type="checkbox"/>	0
9		192.168.1.	<input type="checkbox"/>	0
10		192.168.1.	<input type="checkbox"/>	0
11		192.168.1.	<input type="checkbox"/>	0
12		192.168.1.	<input type="checkbox"/>	0
13		192.168.1.	<input type="checkbox"/>	0
14		192.168.1.	<input type="checkbox"/>	0
15		192.168.1.	<input type="checkbox"/>	0
16		192.168.1.	<input type="checkbox"/>	0
17		192.168.1.	<input type="checkbox"/>	0
18		192.168.1.	<input type="checkbox"/>	0
19		192.168.1.	<input type="checkbox"/>	0
20		192.168.1.	<input type="checkbox"/>	0

Well known services

— select one —

Schedule rule

(00)Always

(00)Always

(01)ftp

Copy to

ID

—

Save

Undo

Help

Now the Virtual Server for the FTP service will only be active from the hours 2:00 pm to 6:00 pm as specified in the schedule rule, (01)ftp time.

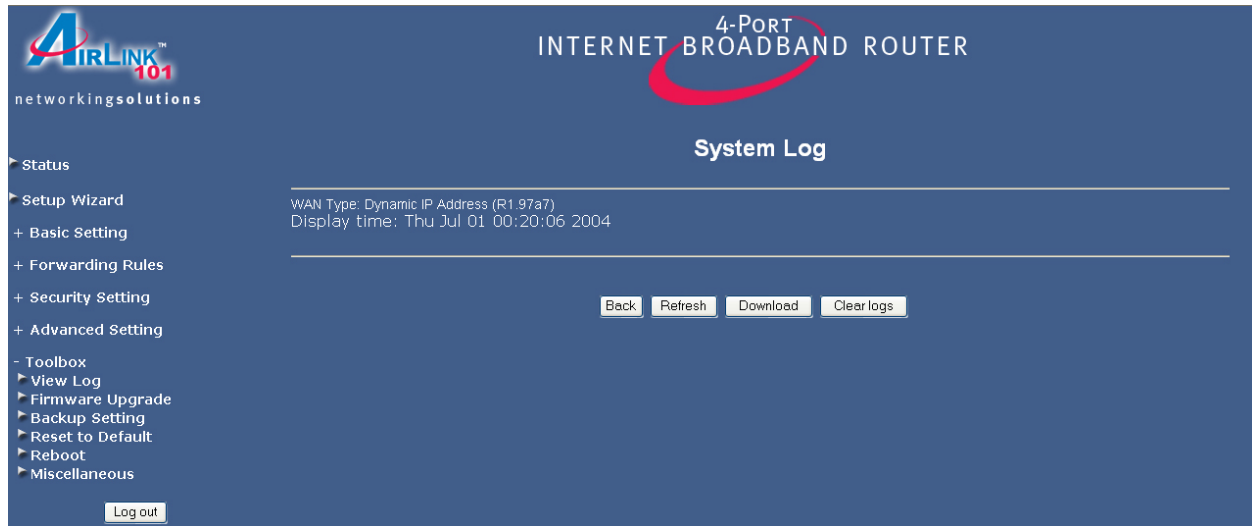
You can follow the same principle in applying the schedule rule to the packet filters.



## 5.6 Toolbox

### 5.6.1 View Log

This page allows you to view the System Log.



**Back:** Returns to the previous page.

**Refresh:** Updates the log.

**Download:** Saves the log to a specified location.

**Clear logs:** Deletes the log from the system.

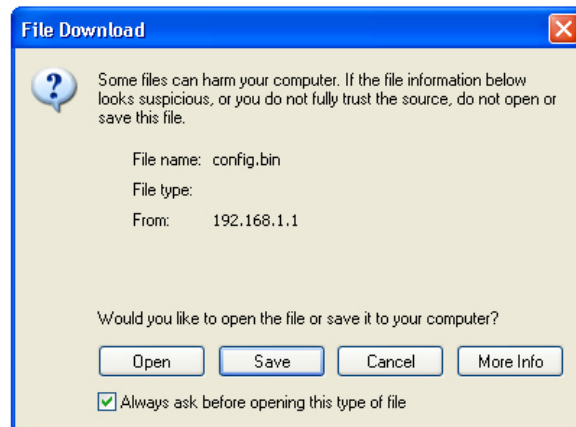
## 5.6.2 Firmware Upgrade

This page allows you to update the router's firmware.

The screenshot shows the web interface of an AirLink 101 4-Port Internet Broadband Router. The page is titled "Firmware Upgrade". On the left is a navigation menu with options: Status, Setup Wizard (expanded), Basic Setting, Forwarding Rules, Security Setting, Advanced Setting, Toolbox, View Log, Firmware Upgrade (selected), Backup Setting, Reset to Default, Reboot, and Miscellaneous. At the bottom of the menu is a "Log out" button. The main content area has a "Firmware Filename" label above a text input field and a "Browse..." button. Below this is a note: "Current firmware version is R1 97a7. The upgrade procedure takes about 20 seconds. Note! Do not power off the unit when it is being upgraded. When the upgrade is done successfully, the unit will be restarted automatically." At the bottom of the main area are "Upgrade" and "Cancel" buttons.

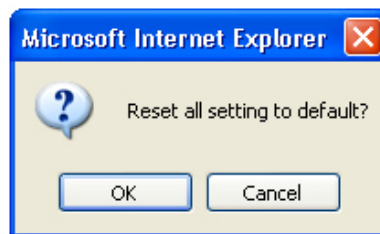
1. Download the latest firmware from the manufacturer's web site.
2. Click the **Browse** button to locate the firmware. Be sure to unzip the file first.
3. Click on **Upgrade**.
4. Wait for the upgrade process to complete.

### 5.6.3 Backup Setting



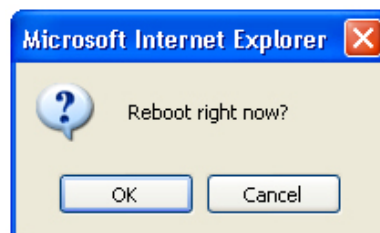
Once you have configured all of the router's settings, you can backup the settings as a file on your hard drive. (The file will be named **config.bin**). When you want to restore the saved settings, go to the firmware upgrade page and browse to the **config.bin** file.

### 5.6.4 Reset to Default



Click **OK** to restore all settings to factory default.

### 5.6.5 Reboot



Click **OK** to reboot the router.

## 5.6.6 Miscellaneous Items

Item	Setting
MAC Address for Wake-on-LAN	<input type="text"/> <input type="button" value="Wake up"/>

Wake-on-LAN is a technology that enables you to power up a network device remotely. In order to use this feature, the target device must be Wake-on-LAN enabled and you have to know the MAC address of the device, i.e. 00-11-22-33-44-55.

Clicking the **Wake up** button will make the router send a wake-up frame to the target device immediately.

## 6. Troubleshooting

### For Cable Modem Users Only

**Step 1** Go to the router's Setup Wizard.

**Step 2** At the Cable Modem setting (**Dynamic IP Address**), click on the **Clone MAC** button and click **Next**.

LAN IP Address: 192.168.1.1

Host Name:  (optional)

WAN's MAC Address: 00-50-18-21-B7-EF

**Step 3** Proceed through the rest of the setup.

**Step 4** Verify the **Connection Status** as described in **Section 4**.

## For DSL Users Only

**Step 1** Go to the router's Setup Wizard.

**Step 2** At the **PPPoE** setting, double-check the spelling of your **Account name** and **Password**. Some ISPs require you to include the domain name along with your account name in the **Account Name** field.

**Example:** username@sbcglobal.net

**Step 3** Complete the Setup Wizard and verify the **Connection Status** as described in **Section 4**.

## For Cable Modem and DSL Users

**Step 1** Power off the Cable/DSL modem, router, and computer and wait for **5 minutes**.

**Step 2** Turn on the Cable/DSL modem and wait for the lights on the modem to settle down.

**Step 3** Turn on the router and wait for the lights on the router to settle down.

**Step 4** Turn on the computer.

**Step 5** Redo the Setup Wizard.

**Step 6** Verify the Connection Status as described in **Section 4**.

## Appendix

### Technical Support

E-mail: [support@airlink101.com](mailto:support@airlink101.com)

Toll Free: 1-888-746-3238

Web Site: [www.airlink101.com](http://www.airlink101.com)